

EXPRESS MAIL CERTIFICATE

JC13 Rec'd PCT/PTO 2-1 DEC 2001

I hereby certify that the above paper/fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to the Commissioner of Patents and Trademarks, Box: PCT, Washington, D.C. 20231, on **December 21, 2001**. Express Mail No.: **EL665867873US**. Signature of Person mailing paper/fee:


Stephen G. SullivanIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Date: December 21, 2001

Prasad Narhar GADGIL

Serial No.: To Be Assigned

Group Art Unit: To Be Assigned

Filed: Herewith

Examiner: To Be Assigned

For: APPARATUS FOR ATOMIC LAYER CHEMICAL VAPOR DEPOSITION

Box: PCT
Assistant Commissioner of Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. §1.97

Sir:

Pursuant to 37 C.F.R. §1.97 and §1.98, Applicants submit for consideration in the above-identified application the documents listed on the attached Form PTO-1449. The Examiner is requested to make these documents of record. This Information Disclosure Statement is being submitted:

☒ With copies.

☐ Without copies. Copies of the documents were previously submitted in an Information Disclosure Statement and/or Office Action, directed to the related application Serial No. *, filed *. This protocol conforms with 37 C.F.R. §1.98(d) and M.P.E.P. 609 (A)(2).

☒ With the application; accordingly, no fee or separate requirements are required.

☐ Within three months of the application filing date or before mailing of a first Office Action on the merits; accordingly, no fee or separate requirements are required.

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____ The documents listed on the attached Form PTO-1449 were cited in a Search Report directed to a counterpart international or foreign application.

____ After receipt of a first Office Action on the merits before mailing of a final Office Action or Notice of Allowance.

____ A fee is required. A check in the amount of \$* is enclosed.

____ A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to this submission in duplicate.

____ A Certification under 37 C.F.R. §1.97(e) is provided below; accordingly; no fee is believed to be due.

____ I hereby certify that each item of information was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

-OR-

____ I hereby certify that no item of information was cited in a communication from a foreign patent office in a counterpart foreign application or, to the best of my knowledge after making a reasonable inquiry, was known to any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

____ After mailing of a final Office Action or Notice of Allowance, but before payment of the issue fee. Accordingly, a Petition requesting consideration of the Information Disclosure Statement, and a Certification under 37 C.F.R. §1.97(e) is provided herein.

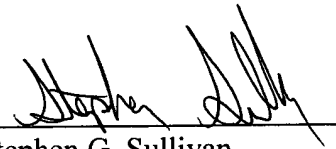
Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account 02-2120 (Sawyer Law Group LLP). If any unresolved issues remain, please contact Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

December 21, 2001

Date



Stephen G. Sullivan
Attorney for Applicant
Reg. No. 30,801
(650) 493-4540

FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)	ATTY. DOCKET NO. 1446NP	SERIAL NO. To Be Assigned
	APPLICANT: Prasad Narhar GADGIL	
	FILING DATE: Herewith	GROUP: To Be Assigned

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPRO.)
	4 9 9 3 3 5 7	02/19/91	Scholz			
	5 2 4 2 5 3 0	09/07/93	Batey et al.			
	5 2 5 6 2 0 5	10/26/93	Schmitt, III et al.			
	5 2 8 1 2 7 4	01/25/94	Yoder			
	5 3 1 6 7 9 3	05/31/94	Wallace et al.			
	5 3 4 2 6 6 0	08/30/94	Cann et al.			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation
0 0 1 5 3 9 0	17.09.80	EPO			

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

✓	Hurle, D.T.J., "Thin Films and Epitaxy," Handbook of Crystal Growth, Vol. 3, 1994, pp. 606-663.
✓	Liu, H. et al., "GaAs Atomic Layer Epitaxy in a Rotating Disc Reactor," SPIE, Vol. 1676, 1992, pp. 20-25.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPRO.)
	5 8 1 0 9 4 2	09/22/98	Narayanswami et al.			
	5 8 7 9 4 5 9	03/09/99	Gadgil et al.			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

✓	McIntosh, F.G. et al., "Silicon Monolayer Growth Using Dichlorosilane and Hydrogen in a Near Atmospheric Pressure Chemical Vapor Deposition Reactor," Thin Solid Films 225, 1993, pp. 183-186.
✓	Reid, K.G. et al, "The Role of Gas Phase Decomposition in the Ale Growth of III-V Compounds," North Carolina State University, Electrical & Computer Engineering Dept., Raleigh, NC., pp. 133-138.

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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

<input checked="" type="checkbox"/>	Sumakeris, J. et al., "Layer-by-Layer Epitaxial Growth of GaN at Low Temperatures," Thin Solid Films, 1993, pp. 244-249.
<input checked="" type="checkbox"/>	Usui, Akira, "Atomic Layer Epitaxy of III-V Compounds: Chemistry and Applications," Proceedings of the IEEE, Vol. 80, No. 10, October 1992, pp. 1641-1653.

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